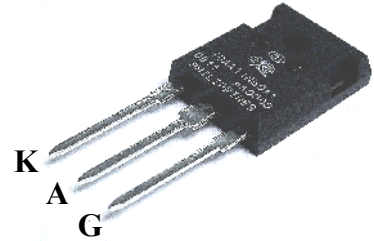


PRELIMINARY DATASHEET
**Silicon Controlled Rectifier, 1200/ 20A
 In TO247 Package**

- High voltage & high current
- Low on-state voltage
- Suitable for over voltage control, motor control circuit and heating control system
- Pb-free lead finish; RoHS compliant


MAXIMUM RATINGS, $T_C = 25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Units
Average on-state current $T_C = 100^\circ\text{C}$, $T_J = 180^\circ\text{C}$ conduction half sine wave	$I_{T(AV)}$	20	A
Non-repetitive surge peak on-state current $T_J = 125^\circ\text{C}$, $t_p = 10$ ms	I_{TSM}	340	
I_{Tf} value for fusing $T_J = 125^\circ\text{C}$, $t_p = 10$ ms	I_{Tf}	574	A·s
Rate of rise of on-state current $T_J = 125^\circ\text{C}$	di/dt	200	A/ μs
Peak gate current $T_J = 125^\circ\text{C}$	I_{GM}	2.0	A
Maximum repetitive peak off-state voltage $I_R = 100\mu\text{A}$	V_{DRM}	1200	V
Maximum repetitive reverse voltage $I_R = 100\mu\text{A}$	V_{RRM}	1200	
Operating junction and storage temperature	T_J, T_{stg}	-40... +125	$^\circ\text{C}$

Thermal Resistance

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	1	$^\circ\text{C} / \text{W}$
Thermal resistance, junction to ambient	R_{thJA}	40	

CAUTION: These devices are ESD sensitive. Use proper handling procedure.

Electrical Characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
I_{GT}	Anode supply = 6V	-	60	-	mA
V_{GT}		-	1.3	-	V
V_{GD}		-	0.25	-	
I_{GD}	$T_j = 125^\circ\text{C}$	-	2.0	-	mA
I_H	$T_j = 125^\circ\text{C}$, anode supply 6 V	-	125	-	
I_L		-	180	-	
dV/dt	$T_j = 125^\circ\text{C}$	-	200	-	V/ μs
V_{TM}	$I_F = 25\text{A}$	-	1.3	-	V
V_{TO}	$T_j = 125^\circ\text{C}$	-	1.03	-	
R_t		-	10.5	-	m Ω
t_q		-	-	100	-

Package Outline Drawing
